



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,576	12/17/2001	Larry Friesen	53921/156	6264

27871 7590 10/18/2005

BLAKE, CASSELS & GRAYDON LLP
BOX 25, COMMERCE COURT WEST
199 BAY STREET, SUITE 2800
TORONTO, ON M5L 1A9
CANADA

EXAMINER

JUNG, MIN

ART UNIT	PAPER NUMBER
----------	--------------

2663

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/015,576

Applicant(s)

FRIESEN ET AL.

Examiner

Min Jung

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 4-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Dave, US 6,850,704.

Dave discloses a fault-tolerance technique for optical and other cross-connect systems.

Regarding the present claim 1, Dave teaches a system for controlling switching fabrics in a communications switch platform having a data plane for processing data, including an active fabric having an ingress and an egress and establishing a first datapath, a redundant fabric having an ingress and an egress and establishing a second datapath, and a fabric switch selecting one of the fabrics to a system output (Figs. 4 and 5, and cols. 3 and 4), comprising a control plane for monitoring the processing of data (electronic code switch fabric 414, controller 404, and output interface 408 / output interface cluster 522), including: a plurality of monitors operatively connected to monitor the status of elements in the active and redundant fabrics in the data plane (the electronic code switch fabric 414 monitors input check code signal 416,

Art Unit: 2663

and the output interface 408, 522 monitors output check code signals 418, 526, see col. 3, lines 44-60 and col. 4, lines 18-23); and a first fabric activity switch circuit adapted to determine whether the fault occurred in the active fabric (compare module compares the check codes in output check code signal 418 with the two local check code signals 609 to determine if either of them is in error, col. 4, lines 33-50), and if so, to generate a fabric activity switch signal directed to the fabric switch to switch to the redundant fabric (compare module 607 detects the mismatch and cause selector 603 to select the other output information signal in the other buffer 601 as the appropriate output signal to transmit, col. 4, lines 51-61), whereby, the control plane receives data plane fabric status inputs from the data plane and effects control over the fabric switch, but otherwise operates independently of the data plane.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dave in view of Walsh et al. PG Pub. US 2002/0099972 (Walsh).

Regarding claim 2, Dave fails to teach a redundant fabric activity switch for providing redundant control over the fabric switch. Walsh, on the other hand, teaches two Router Control Processors (RCPs) which provide redundancy within the control

Art Unit: 2663

plane so that in the case of a failover or switchover event, a standby processor assumes the role of a master. See Abstract, and paragraphs [0026], [0027], [0031], and [0033]. It would have been obvious for one of ordinary skill in the art at the time of the invention to implement Dave's switching system by employing the control plane redundancy concept taught by Walsh to provide redundancy not only in the data plane, but also in the control plane to make the system more fault resistant. Such modification would have been obvious because both Dave and Walsh are directed to providing redundancy using a separate control mechanism for dealing with faulty situation, and the concept of duplicate control processor can readily be adopted as providing a duplicate code switch fabric and output interface in Dave to add another layer of protection.

Regarding claim 3, from the combined teaching of Dave and Walsh as explained above, it could be readily realized that it would be obvious to include a plurality of redundant monitors. In other words, it would have been obvious for one of ordinary skill in the art at the time of the invention to not just include a redundant code switch fabric and output interface but also to include the lines for receiving (monitoring) the input check code signals, output check code signals, etc.

Regarding claims 8-10, the combined teaching of Dave and Walsh fails to specifically teach a fabric override input for overriding the selection of a fabric by the fabric activity switch circuit. However, it is well known in the art that an activity or a function can be overridden in many different situations to set the system in certain desired mode. Providing an overriding input may be mechanically generated input in

Art Unit: 2663

reaction to a certain condition, or it may even be a manual input. Therefore, an Official Notice is taken that an override input as claimed is well known in the art, and therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to adopt the well known feature of fabric override input signal in implementing the combined teaching of Dave and Walsh.

Allowable Subject Matter

5. Claims 4-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Hurtt et al. patent, the Jones et al. patent, the Owada patent, the Lau patent, and the Chidambaran et al. patent, are cited for further references.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Min Jung whose telephone number is 571-272-3127. The examiner can normally be reached on Monday, Thursday, Friday 7:30 - 6:00.

Art Unit: 2663

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ
October 11, 2005



Min Jung
Primary Examiner